



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,634	11/24/2003	Hokan S. Colting	S1751/12	1295
27871	7590	12/15/2004	EXAMINER	
BLAKE, CASSELS & GRAYDON LLP BOX 25, COMMERCE COURT WEST 199 BAY STREET, SUITE 2800 TORONTO, ON M5L 1A9 CANADA			SWIATEK, ROBERT P	
		ART UNIT	PAPER NUMBER	
		3643		

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/718,634	COLTING, HOKAN S. 	
	Examiner	Art Unit	
	Robert P. Swiatek	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 13 September 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 19-25 is/are allowed.
- 6) Claim(s) 1-6 and 8-18 is/are rejected.
- 7) Claim(s) 7 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9-13-04.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 10-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell (US 5,645,248). The patent to Campbell discloses a lighter-than-air sphere with a propulsion unit 55 utilizing a pusher propeller recessed within the sphere, photovoltaic panels 71, telecommunications equipment, and a camera 43 (see column 6, lines 6-19, of Campbell). The propeller 56 of Campbell is deemed to constitute a boundary layer separation suppression element—similar to applicant's pusher propeller—even though the boundary layer separation interface it produces is displaced somewhat rearwardly of the sphere's surface (as applicant notes on page 8, lines 14, 15, of remarks filed 13 September 2004, the Campbell separation “is moved further away from the rear of the aircraft”) rather than formed substantially at the rear surface of the sphere.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3643

Claims 3-6, 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell. The Campbell LTA sphere includes an inner ballonet 34 as well as an external structure 23 formed of material 29. Communications and surveillance equipment in the form of transmitters, receivers, and cameras can be included with the sphere. The dimensions and rotation rate of the pusher propeller of Campbell as well as the use of rechargeable batteries with the photovoltaic panels, whereby the panels in essence would replenish the batteries with "fuel," would have been obvious to one skilled in the art wishing to maximize the propeller's effect with respect to the flight characteristics of the aircraft and permit sustained operation of the communications and surveillance devices.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ishkov (WO 00/58152: Ref. B13 on Information Disclosure Statement filed 13 September 2004). The spherical lighter-than-air aircraft of Ishkov includes a pair of propulsion engines 6 connected to a series of nozzles 7 distributed over a portion of the aircraft's surface. These nozzles are considered to provide the sphere with both propulsion and directional capabilities. Those nozzles 4 near the rear of the Ishkov aircraft (as seen in Figure 2 of the reference), are considered to constitute boundary layer separation suppression elements.

Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The terminal disclaimer filed 13 September 2004 has been disapproved. An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR

1.321(b) and/or (c). Inasmuch as the terminal disclaimer is a *bona fide* attempt to overcome the provisional double patenting rejections set forth in the earlier Office action, these rejections have not been repeated and are considered moot. A power of attorney recognizing Mr. Mark D. Penner will be sufficient to overcome the objection to the disclaimer.

Applicant's arguments filed 13 September 2004 have been fully considered but they are not persuasive. Claims 1-6, 8-18 are not believed allowable for the reasons set forth above.

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 13 September 2004 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3643

Summary: Claims 1-6, 8-18 have been rejected; claim 7 has been objected to; claims 19-25 have been allowed.

RPS: 0703/308-2700

10 December 2004

Robert P. Swiatek

**ROBERT P. SWIATEK
PRIMARY EXAMINER
ART UNIT 3643**